Date Report Submitted: July 2, 1975

ENVIRONMENTAL PROTECTION AGENCY
AIR POLLUTANT EMISSIONS REPORT

FORM APPROVED
OMB NUMBER 158-R75

SECTION I - GENERAL INFORMATION

For Official Use Only:

Date Sent: _____

Date Returned: _____

UTM Grid Coordinates: _____

SIC No.: _____

Source ID: _____

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

Plant, institution, or establishment address: P.O. Box 504 (Street or Box Number) Joliet (City) Illinois (State) 60434 (Zip)

Person to contact regarding this report: Robert F. Vonachen Title: Plant Engineer Telephone: 815-729-5210

Mailing address: P. O. Box 504 (Street or Box Number) Joliet (City) Illinois (State) 60434 (Zip)

Approximate number of employees at plant, institution, or establishment location: ☐ Less than 100 ☐ 100 or more.

Elevation of plant, institution, or establishment in relationship to mean sea level: _____ feet above mean sea level, _____ feet below mean sea level.

Information is representative of calendar year: 1974-75

Land area at plant location: 401 acres. Enclose a sketch of layout if there is more than one building.

Plant location: (give nearest cross streets, describe by landmarks or enclose a map, engineering drawing, or sketch)
Route 6 Plant - U.S. Route 6 Channahon Rd. 1 mile SE of Larkin Avenue, Joliet, Illinois
Building F - W. McDonough St., Joliet, Illinois

☐ Air pollutants of the type indicated in the instructions for the completion of this report, i.e., _____ are not emitted at this plant, institution or establishment. Therefore, no other Sections of the report need be completed.

_____ (Signed) _____ (Title)

Please return all sections of this report to: _____

Additional forms may be obtained from the above address.

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SECTION II - FUEL COMBUSTION FOR GENERATION OF HEAT, STEAM, AND POWER

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

Normal operating schedule for fuel use: 24 Hours per day 7 Days per week 52 Weeks per year 8736 Hours per year.

Dates of annually occurring shutdowns of operations: Route 6 heating plant - 7 - 10 days mid July each year. Additional operating information enclosed XX.

	Source[a,e] Code	Number of Combustion Sources[b,e] (Boilers)	ACTUAL HEAT INPUT ~~Size of Unit (Input)[c,e]~~ 10^6BTU/hr.	Type of Unit[d,e]	Installation Date[e]	Percent Excess Air Used In Combustion (Design)[e]	Power Output Megawatts[e,f]
#1	1 02 006 02	1	100	Gas fired	1951 - modified to N.G. 9-72	20	NA
#2	1 02 002 09	1	100	Spreader stoker	1951		
#3	1 02 002 04	1	125	Spreader stoker	1953		
#4	1 02 006 01	1	125	Dual fuel - NG & spreader stoker	1968 modified to N.G. 1973		
MJ4187	1 02 006 02	1	37.11	Gas fired	1968		
MJ4188	1 02 006 02	1	37.11	Gas fired	1968		

a. List a separate code number to represent each source (e.g., II-a, II-b, II-c, etc.), then enter the same code number and the required data on the continuation of this Section on Page 3, and in Sections V and VI.

b. Multiple sources may be grouped if units are similar in size and type, burn the same fuel, or are vented to the same stack.

~~c. Nameplate data are sufficient (give rated or maximum capacity, whichever is greater).~~

d. Hand-fired, underfeed, overfeed, traveling-grate or spreader stoker; cyclone furnace; pulverized, wet or dry bottom with or without fly ash reinjection; rotary or gun type oil burner; etc.

~~e. List separately future equipment and expected date of installation.~~

f. Power generation only.

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SECTION II - FUEL COMBUSTION FOR GENERATION OF HEAT, STEAM, AND POWER (continued)

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

	Source Code[a]	Type of Fuel[b]	Annual Consumption[c]					Hourly Consumption[d]		Percent Used for Space Heat	Heat Content BTU/Quan.[e]	Percent Sulfure,[f]	Percent Ash (Solid Fuel Only)[e,f]	Delivered Cost of Fuel $/Quantity	Future Uses[g]
			Quantity[d]	Percent Distribution by Season				Maximum	Average						
				Spring March/ May	Summer June/ Aug.	Fall Sept./ Nov.	Winter Dec./ Febr.								
#1		Nat gas	220,000	22.4	8.4	30.1	39.1	100		43	1036				
#2		Bitum Coal	7,000	47.6	0	17.9	34.5	4.37		43	11076	3.9	10.7		
#3		Bitum Coal	9,000	30.3	0	30.8	38.9	5.48		43	11076	3.9	10.7		
#4		Nat gas	272,000	22.2	23.0	23.3	31.5	125		43	1036				
MJ4187		Nat gas	40,000	23.5	21.9	22.1	32.4	35.82	4.380	43	1036				
MJ4188		Nat gas	40,000	23.5	21.9	22.1	32.4	35.82	4.380	43	1036				

a. List code numbers corresponding to each source referred to on page 2, (e.g., II-a, II-b, II-c, etc.), then enter required data on this page, and for the same code number sources in Sections V and VI.
b. Coke, bituminous coal, anthracite coal, lignite; No. 1, 2, 4, 5 and 6 fuel oil; natural gas; LPG; refinery or coke oven gas; residual coke; wood; bark; sludge; etc. (Note: Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type.)
c. Fuel data are to be reported on an "as burned" basis.
d. Solid fuel, tons; liquid fuel, gallons; gaseous fuel, 1000 cubic feet.
e. If unknown, please give name and address of fuel supplier.
f. Sulfur and ash content for each fuel should be a weighted average.
g. Estimated percent increase or decrease in fuel usage (by fuel type) per year for the five years after the calendar year for which this report is completed. If increase is due to new equipment, please list this equipment separately on page 2 and the expected fuel use on this page.

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SECTION III - COMBUSTIBLE SOLID AND LIQUID WASTES DISPOSAL

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

Combustible solid and liquid wastes disposed of ☐ on site, ☐ off site, ☐ both on and off site. If off site, location of disposal site and/or name of hauler: Banner Disposal Co., Lockport Trucking Co. & Browning Ferris Industries. (If disposal of solid and liquid wastes is partly or wholly on site, complete remainder of this page and Sections IV, V and VI; otherwise, skip to Section IV.)

Normal on-site combustion operating schedule: _____ Hours per day _____ Days per week _____ Weeks per year _____ Hours per year.

Seasonal and/or peak operation period: (Specify) _____

Dates of annually occurring shutdowns of operations: _____. Additional operating information enclosed ☐.

Source Code[a]	Waste Material			Method of Disposal[d]	Installation Date	Hourly Burning Rate, lbs.		Auxiliary Fuel Used[e]	Percent Excess Air Used in Combustion (Design)	~~Future Disposal[f]~~
	Type[b]	Amount Per Year[c]	Percent Combustible			Average	Maximum			

a. List a separate code number to represent each source (e.g., III-a, III-b, III-c, etc.), then enter required data on this page and for the same code number sources in Section V and VI.
b. Rubbish, garbage, mixed garbage and rubbish, waste paper, wood chips or sawdust, etc.
c. Tons, pounds, or gallons/year.
d. Open burning dump; incinerator, single chamber; etc. (See instructions for examples and use appropriate identification numbers; other non-listed methods, specify.)
e. Indicate whether auxiliary fuel is used in incinerators and pit burning, and the amount.
f. Estimated increase or decrease in combustible solid and liquid wastes disposal rate for the five years after the calendar year for which this report is completed. If increase is due to new equipment, please list this equipment separately.

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SECTION IV - PROCESS/OPERATIONS EMISSIONS

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

Normal operating schedule: _____ Hours per day _____ Days per week _____ Weeks per year _____ Hours per year.

Seasonal and/or peak operation period: _____

Dates of annually occurring shutdowns of operations: _____. Additional operating information enclosed ☐.

Source Code[a]	Processes or Operations Releasing Pollutants to the Atmosphere[b,c,d]	Date Installation Went on Line	Raw Materials[e] Used for Processes or Operations				Products[g] of Processes or Operations				Intermittent Operation Only: Average Hours/week[h]	Future[j] Increase or Decrease in Process Rate
			Type	Quantity			Type	Annual Average[f]	Quantity			
				Annual Average[f]	Hourly Process Rate, lbs.				Hourly Process Rate, lbs.			
					Design	Maximum			Design	Maximum		

a. List a separate code number to represent each source (e.g., IV-a, IV-b, IV-c, etc.) then enter required data on this page and for the same code number sources in Sections V and VI.
b. Multiple sources may be grouped if similar in size and type.
c. Sulfuric acid-contact; aluminum smelting-crucible furnace; cement manufacturing-dry process; etc. (See instruction for examples and use appropriate identification numbers; other non-listed processes and operations, specify.)
d. The pollutants to be covered in this report are listed in the accompanying instructions.
e. Sulfur burned; pig, foundry returns, or scrap aluminum melted; limestone, cement rock, clay, iron ore used; etc.
f. Pounds, tons, gallons, barrels, etc.
g. Sulfuric acid produced; aluminum ingots produced; cement produced; etc.
h. For intermittent processes, indicate average number of hours per week of operation so that estimates of yearly emissions may be obtained.
j. Estimated percent increase or decrease in process rate on a total plant basis for the five years after the calendar year for which this report is completed. If increase is due to new equipment, please list this equipment separately.

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SECTION V - AIR CLEANING EQUIPMENT

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

	Source Code[a]	Type of Air Cleaning Equipment[b,c]	Installation Date[c]	Pollutant Removed[c,d]	Efficiency[e]		Inlet Gas Temperature, °F	Inlet Gas Flow Rate,[f] CFM	Exit Gas Pressure, PSI
					Design Percent	Operating Percent			
#1		Multiclone	1951	Particulate	93	Unknown	410	36,200	Unknown
#2		Multiclone and SO_2 Wet scrubber	1951 and 1974	Particulate SO_2	Part 99 SO_2 75+	Unknown	410	36,200	Unknown
#3		Multiclone and SO_2 Wet scrubber	1953 and 1974	Particulate SO_2	Part 99 SO_2 75+	Unknown	410	45,300	Unknown
#4		Multiclone	1968	Particulate	94.6	Unknown	510	48,000	Unknown
MJ4187		None							
MJ4188		None							

a. List code numbers corresponding to each emissions source reported in Sections II, III, and IV.

b. Wet scrubber, electrostatic precipitator, fabric filter, etc. (See instructions for examples and use appropriate identification numbers; other non-listed type, specify.)

c. Please list future equipment separately.

d. The pollutants to be covered in this survey are specified in the accompanying instructions.

e. Give efficiency in terms of pollutant removed.

f. At actual flow conditions.

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SECTION VI - STACK AND POLLUTANT EMISSIONS DATA

Plant, institution, or establishment name: Caterpillar Tractor Co. - Joliet Plant

	STACK DATA							ESTIMATE OF POLLUTANT EMISSIONS[e]			
	Source Code[a]	Height Above Grade ft.	Inside Diameter at Top, ft.	Exit Gas Velocity,[b] ft./sec.	Exit Gas Temperature,[b] °F	Exit Gas Flow Rate, CFM[c]		Pollutant[d]	Quantity		
									Tons Per Year	Lbs. Per Hour	
						Average	Maximum			Average	Maximum
#1		78	5	48.8	450		57,388	Particulate SO2	.2 None		.17 None
#2		78	4.3	39	200		44,547	Particulate SO2	.6 129.4		.7 161.5
#3		78	5	38.2	200		58,672	Particulate SO2	.7 166.3		.9 202.5
#4		78	5	40.8	510		48,000	Particulate SO2	.2 None		.2 None
MJ4187		75	5	12.1	510		14,300	Particulate SO2	.03 None		.06 None
MJ4188		75	5	12.1	510		14,300	Particulate SO2	.03 None		.06 None

a. List code numbers corresponding to each emissions source reported in Sections II, III, and IV.

b. Values should be representative of average flow conditions for hours of operation.

c. At actual flow conditions.

d. The pollutants to be covered in this survey are specified in the accompanying instructions.

e. Give stack test data if available (indicate stack sampling method used), otherwise, specify basis used. If unknown, please do not complete these columns.

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